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EXAMINER

ELHILO, EISA B

ART UNIT

PAPER NUMBER

1751

DATE MAILED: 03/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/814,337	Applicant(s) PLOS ET AL.	
	Examiner Eisa B. Elhilo	Art Unit 1751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 8-53 is/are rejected.
- 7) ☒ Claim(s) 6 and 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Claims 1-53 are pending in this application.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 9-16, 21-22, 28-29, 31-32, 34-36 and 38-53 are rejected under 35

U.S.C. 102(b) as being anticipated by or, in alternative, under 103(a) as obvious over Matsunaga et al. (US 2001/0054206 A1).

Matsunaga et al. (US' 206 A1) teaches a hair dyeing composition comprising a fluorescent of azomethine compound of a formula (2) which is identical to the claimed formula (F2) as claimed in claims 1, 4 and 5 (see page 1, formula (2)), wherein the fluorescent compound is presented in the composition in the amounts of 0.01 to 20%, 0.05 to 10% or 0.1 to 5% as claimed in claims 10-12 (see pages 2-3, paragraph, 0016), wherein the composition also comprises hydrocarbons, animal or vegetable fats and oils as claimed in claim 1 (see page 3, paragraph, 0025), anionic surfactants in the amount of 2% as claimed in claims 21-22 (see page

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3, paragraph, 0025 and page 5, Example 13), para-phenylenediamine as an oxidation base in the amount of 0.5 to 10% by weight as claimed in claims 28 and 29 (see page 3, paragraph, 0020 and paragraph, 0022), m-phenylenediamine as a coupler in the amount of 0.5 to 10% as claimed in claims 31-32 (see page 3, paragraphs, 0021 and 0022), oxidizing agent of hydrogen peroxide and perborates as claimed in claims 34-36 and 38 (see page 3, paragraph, 0018). Matsunaga et al. (US' 206 A1) also teaches a process for dyeing hair comprising applying to the hair the dyeing composition as described above and wherein the dyeing composition is applied to the hair after mixing with the oxidizing composition as claimed in claims 39-40, 47 and 49 (see page 3, paragraphs, 0026 and 0027). Matsunaga et al. (US' 206 A1) further teaches a discloses a multi-compartment device for dyeing hair as claimed in claim 48 (see page 3, paragraph, 0026). Matsunaga et al. (US' 206 A1) teaches the same dyeing ingredients of conditioning agents of hydrocarbon oils and animal or vegetable oils and a fluorescent dye identical to the fluorescent dye of the claimed formula (F2) in the claimed amounts, which inherently would have the same physical properties of reflectances, color properties (orange range) and solubility in specific medium as those claimed and wherein the dyeing composition also can be applied to the claimed type of hair with the claimed tones as claimed in claims 41-46 and 50-53. Matsunaga et al. (US' 206 A1) teaches all the limitations of the instant claims. Hence, Matsunaga et al. (US' 206 A1) anticipates the claims.

However, the claims in the alternative, under 35 U.S.C. 103(a) are obvious over Matsunaga et al. (US' 206 A1), because the reference teaches a hair dyeing composition comprising the same claimed dyeing ingredients of oxidation bases, fluorescent compound, conditioning agents of hydrocarbon oils, animal and vegetable oils and oxidizing agents as

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claimed, and, thus the chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. (see *In re Spada*, 911 F. 2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990), and, thus, a person of the ordinary skill in the art would expect such a dyeing composition to have ingredients having similar physical properties as those claimed including reflectances, color properties and solubility as claimed and wherein the composition can be applied to similar hair having similar tones as claimed. Absent unexpected results.

3 Claims 30 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsunaga et al. (US 2001/0054206 A1).

 Matsunaga et al. (US' 206 A1) as described above, does not teach the percentage amounts of oxidation bases and couplers as claimed.

 However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to formulate thus a composition because Matsunaga et al. teaches percentage amounts of oxidation bases and coupler components that overlapped with the claimed ranges (see page 3, paragraph, 0022), and, thus, a person of the ordinary skill in the art would be motivated to optimize the amount of these oxidation bases and couplers in the composition so as to get the maximum effective amount. The person of ordinary skill in the art would expect such composition to have the similar properties to those claimed, absent unexpected results.

 Furthermore, as the optimization of results, a patent will not be granted based upon the optimization of result effective variable when the optimization is obtained through routine experimentation unless there is a showing of unexpected results which properly rebuts the prima facie case of obviousness, see *In re Boesch*, 617 F.2d 272, 276, 205 USPQ 215, 219 (CCPA

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1980). See also *In re Woodruff*, 919 F. 2d 1575, 1578, 16 USPQ2d 1934, 1936-37 (Fed. Cir. 1990), and *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

4 Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsunaga et al. (US 2001/0054206 A1) in view of Rondeau (US 6,436,153 B2).

The disclosure of Matsunaga et al. (US' 206 A1) as described above, does not teach or disclose the fluorescent compound of the claimed formula (F4).

However, Matsunaga et al. (US' 206 A1) suggests that other direct (fluorescent) dyes may be used in the dyeing composition (see page 2, paragraphs, 0014 and 0015).

Rondeau (US' 153 B2) in analogous art of hair dyeing formulation, teaches a composition comprising a fluorescent dye having a formula similar to the claimed formula (F4), col. 7, formula 14).

Therefore, in view of the teaching of the secondary reference, one having ordinary skill in the art at the time the invention was made would be motivated to modify the composition of Matsunaga (US' 206 A1) by incorporating the fluorescent dyes as taught by Rondeau (US' 153 B2) to make such a composition. Such a modification would be obvious because the primary reference suggest the use of fluorescent dyes in the dyeing composition (see page 2, paragraph, 0014). Rondeau (US' 153 B2) as a secondary reference clearly teaches and discloses the fluorescent compounds of the claimed species, and, thus, a person of the ordinary skill in the art would be motivated to incorporate the fluorescent compounds of the claimed species as taught by Rondeau (US' 153 B2) in the dyeing composition of Matsunaga (US' 206 A1) with a reasonable expectation of success for improving the dyeing properties of the composition and would expect such a composition to have similar properties to those claimed, absent unexpected results.

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5 Claims 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsunaga et al. (US 2001/0054206 A1) in view of Cauwet et al. (US 5,853,708).

 The disclosure of Matsunaga et al. (US' 206 A1) as described above, does not teach or disclose the specific species of the claimed oils.

 However, Matsunaga et al. (US' 206 A1) suggests the use of hydrocarbons, animal or vegetable oils in the dyeing composition (see page 3, paragraph, 0025).

 Cauwet et al. (US' 708) in other analogous art of hair dyeing formulation, teaches a composition comprising hydrocarbon oils such as poly- α -olefins in the amounts of 0.1 to 20% as claimed in claims 17-20 (see col. 3, lines 14 and 23-36).

 Therefore, in view of the teaching of the secondary reference, one having ordinary skill in the art at the time the invention was made would be motivated to modify the composition of Matsunaga et al. (US' 206 A1) by incorporating the hydrocarbon oils as taught by Cauwet et al. (US' 708) to make such a composition. Such a modification would be obvious because Matsunaga et al. (US' 206 A1) as a primary reference suggests the use of the genus hydrocarbons and animal or vegetable oils in the hair dyeing composition (see page 3, paragraph, 0025). Cauwet et al. (US' 708) as a secondary reference clearly teaches the claimed species poly- α -olefins and, thus, a person of the ordinary skill in the art would be motivated to incorporate the claimed species poly- α -olefins as taught by Cauwet et al. in the dyeing composition of Matsunaga et al. with a reasonable expectation of success for improving the performance of the dyeing composition and would expect such a composition to have similar properties to those claimed, absent unexpected results.

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6 Claims 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsunaga et al. (US 2001/0054206 A1) in view of Vandebossche et al. (US 6,391,062 B1).

The disclosure of Matsunaga et al. (US' 206 A1) as described above, does not teach or disclose the claimed species of the direct dyes.

However, Matsunaga et al. (US' 206 A1) suggests the use of other direct dyes in the keratin fiber formulation (see page, 2, paragraph, 0015).

Vandebossche et al. (US' 062 B1) in other analogous art of keratin fibers dyeing formulation, teaches a dyeing composition comprising direct dyes such as nitrobenzene and anthraquinone dyes in the amounts of 0.5 to 10% which overlapped with the claimed ranges as claimed in claims 23-26 (see col. 7, lines 62-67 and col. 8, lines 1-3).

Therefore, in view of the teaching of the secondary reference, one having ordinary skill in the art at the time the invention was made would be motivated to modify the composition of Matsunaga (US' 206 A1) by incorporating the direct dyes in the claimed amounts as taught by Vandebossche et al. (US' 062 B1) to make such a composition. Such a modification would be obvious because the primary reference suggest the use of direct dyes in the dyeing composition (see page 2, paragraph, 0015). Vandebossche et al. (US' 062 B1) as a secondary reference clearly teaches and discloses direct dyes of the claimed species nitrobenzene and anthraquinone dyes to broaden the range of shades and to obtain varied shades (see col. 7, lines 59-65), and, thus, a person of the ordinary skill in the art would be motivated to incorporate the direct dyes as taught by Vandebossche et al. (US' 062 B1) in the dyeing composition of Matsunaga (US' 206 A1) with a reasonable expectation of success for obtaining varied shades and would expect such a composition to have similar properties to those claimed, absent unexpected results.

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7 Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsunaga et al. (US 2001/0054206 A1) in view of Giuseppe et al. (US 5,744,127).

The disclosure of Matsunaga (US' 206 A1) as described above, does not teach or disclose dyeing compositions in forms of dyeing shampoos as claimed.

However, Matsunaga et al. (US' 206 A1) clearly teaches that no particular limitation is imposed on the form of the hair dyeing composition (see page 3, paragraph, 0027).

Giuseppe et al. (US' 127) in other analogous art of hair treating formulation, teaches compositions formulated as a hair shampoo and hair dyeing as well (see col. 6, lines 5-6).

Therefore, in view of the teaching of the secondary reference, one having ordinary skill in the art at the time the invention was made would be modified to formulate the dyeing composition of Matsunaga et al. in a shampoo form as taught by Giuseppe et al. to arrive at the claimed composition. Such a modification would be obvious because Giuseppe et al. clearly teaches that the dyeing composition can be formulated in a shampoo form, and, thus, one having ordinary skill in the art would be motivated to formulate the dyeing composition in any form including the shampoo form, and would expect such a composition to have similar properties to those claimed, absent unexpected results.

8 Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsunaga et al. (US 2001/0054206 A1) in view of Saunier et al. (US 2001/0034914 A1).

The disclosure of Matsunaga (US' 206 A1) as described above, does not teach or disclose the claimed species peroxidases as oxidizing agent in the dyeing composition.

However, Matsunaga et al. (US' 206 A1) suggests the use of oxidizing enzymes such as laccase in the hair dyeing composition (see page 3, paragraph, 0019).

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Saunier et al. (US' 914 A1) in other analogous art of hair dyeing formulation, teaches a composition comprising oxidizing agents such as laccase and peroxidase (see page 15, paragraph, 0474).

Therefore, in view of the teaching of the secondary reference, one having ordinary skill in the art at the time the invention was made would be motivated to modify the composition of Matsunaga et al. (US' 206 A1) by replacing the laccase enzymes with peroxidase enzymes to active at the claimed invention. Such a modification would be obvious because the primary reference of Matsunaga et al. suggests the use of laccase enzymes as oxidizing agents in the dyeing composition. Saunier et al. as a secondary reference clearly teaches the equivalence between laccases and peroxidases as conventional oxidizing agents used in the dyeing composition, and, thus, a person of the ordinary skill in the art would be motivated to substitute laccases in the dyeing composition of Matsunaga et al. with peroxidases as taught by Saunier et al. to arrive at the claimed invention and would expect such a composition to have similar properties to those claimed, absent unexpected results.

Allowable Subject Matter

9 Claims 6-7 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art of record do not teach or disclose a hair dyeing composition comprising fluorescent of the claimed formula (F3).

Conclusion

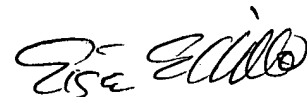
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eisa B. Elhilo whose telephone number is (571) 272-1315. The

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examiner can normally be reached on M - F (8:00 -5:30) with alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas McGinty can be reached on (571) 272-1029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Eisa Elhilo
Primary Examiner
Art Unit 1751

October 27, 2005